

In re Application of
Johnson

Serial No.: 10/820,578

Filed: April 8, 2004

**For: Delivery Vehicle With Automatic Door
Unlocking System**

Docket No: 5115-001

PATENT PENDING

Examiner: Christopher J. Boswell

Group Art Unit: 3676

Confirmation No.:8573

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

CERTIFICATE OF MAILING OR TRANSMISSION [37 CFR 1.8(a)]

I hereby certify that this correspondence is being:

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September 5, 2006

Date _____

Kathy L. McDermott

This correspondence is being:

- ☒
- electronically submitted via EFS-Web

RESPONSE TO OFFICE ACTION

This paper is being filed in response to the Office Action mailed April 4, 2006.

A request to make an Electronic Funds Transfer (EFT) in the amount of \$225 for a two-month time extension is attached to this submission. If any fees or charges are required, the Commissioner is hereby authorized to charge them to Deposit Account 18-1167.

AMENDMENTS TO THE CLAIMS

1. (Original) A vacuum actuated automatic door latching assembly for unlocking a door of a delivery vehicle, comprising:
 - a. a latch operatively associated with the door for latching the door, the latch movable between the lock and unlocked positions;
 - b. a pneumatic actuator operatively associated with the latch for causing the latch to move between the locked and unlocked positions;
 - c. a vacuum line connected to the pneumatic actuator and adapted to connect to a vacuum source associated with the vehicle;
 - d. a control valve disposed between the vacuum source and the pneumatic actuator for controlling the activation of the pneumatic actuator; and
 - e. a biasing device engaging the door and biasing the door towards an open position.
2. (Original) The door latching assembly of claim 1 wherein the latch includes a locking lever that is pivotally mounted and movable between a locked and unlocked position, wherein the pneumatic actuator includes an arm that engages the locking member and moves the locking member in at least one direction between the locked and unlocked positions.
3. (Original) The door latch assembly of claim 1 where the latch assembly includes a conventional key lock but wherein the pneumatic actuator is operative to actuate the latch independent of the key lock.
4. (Original) The latching assembly of claim 2 wherein the locking lever is of a generally L-shape and includes a terminal end portion that includes a catch for engaging a receiver secured to the door to be latched.
5. (Original) The door latching assembly of claim 1 further including a delivery vehicle having a load compartment and a sliding door that permits access to the load compartment and wherein the latching assembly is mounted adjacent the sliding door and

wherein the vehicle includes an engine that serves as the vacuum source for actuating the pneumatic actuator.

6. (Original) The latching assembly of claim 1 wherein the biasing device includes a spring.

7. (Original) The latching assembly of claim 6 wherein the spring is adapted to extend between a stop disposed on the door and an area adjacent the door, and wherein the position of the spring is adjustable with respect to the door.

8. (Original) The latching assembly of claim 7 wherein the spring is at least partially contained within a sleeve.

9. (Original) The latching assembly of claim 8 wherein the spring is fixed to a threaded bolt that extends at least partially through the sleeve and which can be adjusted with respect to the door.

10. (Previously Amended) A delivery vehicle having a vacuum actuated latch assembly for latching an access door to a load compartment, comprising:

- a. an engine for powering the vehicle;
- b. a compartment for receiving and holding a load;
- c. a sliding door for permitting access to the compartment of the vehicle;
- d. a vacuum actuated latch assembly for automatically unlocking the door, the vacuum actuated latch assembly comprising:
 - i. a latch operatively associated with a door for locking the door;
 - ii. the latch being movable between a locked and an unlocked position;
 - iii. a pneumatic actuator operatively associated with said latch for causing the same to move between the locked and unlocked position;

- iv. a vacuum line connected to the pneumatic actuator and extending to the engine of the vehicle such that the engine of the vehicle serves as a vacuum source for the pneumatic actuator;
- v. a control valve disposed between the engine and the pneumatic actuator for controlling the actuation of the pneumatic actuator;
- vi. a biasing device for engaging the sliding door and biasing the sliding door towards an open position, the biasing device being spaced from the latch assembly and operable independently of the latch assembly, and wherein the biasing device includes a spring disposed adjacent the sliding door and positioned with respect to the sliding door such that when the sliding door assumes a closed position the spring engages the sliding door and is compressed by the sliding door, and wherein when the latch is moved from the locked position to the unlocked position the spring forces the sliding door to open.

11. (Original) The delivery vehicle of claim 10 wherein the pneumatic actuator includes a pneumatic cylinder.

12. (Original) The delivery vehicle of claim 11 wherein the latch includes a locking lever for engaging a receiver secured to the door, and wherein the pneumatic actuator includes an arm for engaging and moving the locking lever from a locked position to an unlocked position.

13. (Original) The delivery vehicle of claim 11 wherein the pneumatic actuator can only be actuated to unlatch the latch when the engine of the vehicle is running.

14. (Original) The delivery vehicle of claim 13 wherein the latch normally assumes a locked position, and wherein the arm that extends from the pneumatic actuator is operative

upon the actuation of the pneumatic actuator to engage the latch and move the latch to the unlocked position.

15. (Currently Amended) A method of unlocking a sliding access door to a load compartment of a delivery vehicle comprising: directing a vacuum from an engine of the vehicle through a line to a pneumatic actuator that is operatively associated with a latch that operates to lock the sliding access door and which is movable between a locked position and an unlocked position; utilizing the vacuum to actuate the pneumatic actuator and wherein the actuation of the pneumatic actuator results in the actuator engaging the latch and moving the latch from the locked position to the unlocked position, permitting the sliding access door to open; shutting the engine off; and closing the sliding access door causing the latch to lock the sliding access door; biasing the sliding access door towards an open position while the latch assumes the locked position and locks the sliding access door closed; wherein biasing the sliding access door towards an open position includes securing a spring adjacent to the sliding access door and extending the spring to where the spring engages a stop that extends from the sliding access door such that the spring pushes on the stop and effectively biases the sliding access door towards an open position; and wherein the biasing of the sliding access door towards the open position is independent of the latch that operates to lock the sliding access door and wherein when the latch is moved from the locked position to the unlocked position, the spring causes the sliding access door to move towards the open position.

16. Canceled.

17. Canceled.

18. (Original) The method of claim 15 including actuating a control valve that is effective to permit the vacuum to reach the pneumatic actuator and wherein when the vacuum reaches the pneumatic actuator, the pneumatic actuator is actuated which results in the latch being engaged and moved to the unlocked position.

19. (Original) The method of claim 15 wherein the pneumatic actuator includes an arm that extends past a portion of a locking lever that forms a part of the latch assembly; wherein the actuation of the pneumatic actuator causes the arm to move and to engage a portion of the locking lever which results in the locking lever being pulled from its locked position to an unlocked position.

20. (Original) The method of claim 19 wherein the locking lever is pivotally mounted for movement about an axis and wherein the actuation of the pneumatic actuator causes the locking lever to rotate from a locked position to an unlocked position.

21. (Previously Presented) The delivery vehicle of claim 10 wherein the spring is at least partially housed within an elongated sleeve that is fixed adjacent the sliding door; and wherein the spring is secured to a threaded bolt that is held with a threaded support such that the threaded bolt can move back and forth axially within the threaded support so as to adjust the position of the spring with respect to the sliding door.

REMARKS

The comments of the Examiner have been carefully studied and reviewed. Claims 1-15 and 18-21 stand rejected under 35 USC §103(a) as being unpatentable over Lenz et al., U.S. Patent No. 3,016,968, in view of Garcia, U.S. Patent No. 4,170,374. For the reasons set forth below, it is respectfully urged that the Patent Office has not made out a prima facie case of obviousness.

Claim 10 and claim 5 call for a delivery vehicle having a load compartment and a sliding door that permits access to the load compartment. The sliding door limitation has not been addressed by the Patent Office. Clearly, the truck lid in Lenz is not a sliding door. The Patent Office has not maintained that it would be obvious to modify Lenz to make the conventional truck lid a sliding door. Indeed, it would not be obvious and it would be challenging to proffer a motivation why a person of ordinary skill in the art would want to modify the traditional truck lid of Lenz to make it a sliding door. Thus, all of the claims that include the sliding door limitation define patentable subject matter.

The Patent Office appreciates that Lenz does not disclose the biasing feature for biasing the door opening. However, the Examiner maintains that the secondary reference of Garcia shows a biasing means for biasing the access door of the Garcia truck to an open position. The Examiner proffers a motivation for incorporating the biasing feature into Lenz, and this motivation is that "it decreases the amount of work needed to open the door." Office Action, p. 4. It cannot be determined where the Patent Office found this motivation. There is nothing in Lenz that talks about the difficulty in opening the trunk, or that opening the trunk lid in general requires any significant amount of work. Garcia does not suggest that there is a problem with opening a conventional truck lid. Indeed, conventional trunk lids are easy to open as they can be opened by small children or the elderly. Hence, there is no problem with opening conventional passenger vehicle trunk lids, and respectfully, the proffered motivation in this case is inspired only by hindsight.

Not only is there no motivation to bias the Lenz truck lid to an open position, but doing so would add additional expense and additional components to be serviced and maintained. In the end, such a modification would add uncalled for expense without providing a needed and offsetting benefit.

Claim 7 calls for the spring to extend between a stop disposed on the door and an area adjacent the door. The Patent Office takes the position that in Garcia “the spring is adapted to extend between a stop (74) disposed on the door and an area (42) adjacent the door.....” The spring 54 being referred to does not extend between structure 74 and an area adjacent the door. Rather, spring 54 extends between the rubber boot 50 and an area within housing 24. The claim calls for the spring to extend between a stop on the door. As seen in Applicant’s drawings, the spring actually engages and hence extends between the stop on the door. That is not the case in Garcia. In Garcia the rubber boot and the shaft 52 extend between member 74 and an area adjacent the door.

Claim 7 also calls for the spring to be adjustable with respect to the door. The Patent Office takes the position that the length of shank 52 can be adjusted. There is no support in the record for this finding. The portion of the shank 52 shown in Figure 3 that extends into housing 24 is not even shown. There is no adjustment feature for adjusting the position or the length of the shank 52. Thus, the Patent Office’s finding in this regard is in error.

Claim 8 calls for the spring to at least partially be contained within a sleeve. The Patent Office takes the position that this claim feature is met by Garcia by the spring 54 being contained within the rubber boot 50. Rubber boot 50 is not a sleeve. It is a rubber engaging stop for engaging the leg 74. There is no sleeve in Garcia. The claim term “sleeve” cannot be construed so broadly as to encompass a rubber stop 50 disposed on end of shank 52.

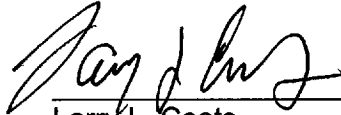
Claim 9 calls for the spring to be fixed to a threaded bolt. The Examiner acknowledges that neither Lenz nor Garcia show the threaded bolt feature. However, the Patent Office takes the position that it would have been obvious to one of ordinary skill in the art at the time the

invention was made to adapt the use of the shank to be threaded such that the threaded shank can move back and forth axially within a threaded support so as to adjust the position of the spring with respect to the door. Office Action, p. 4. There is no factual basis for this proffered motivation. Nothing in either Garcia or Lenz recognizes or appreciates the need for being able to adjust the structure that carries the spring. Certainly, there is nothing that would suggest the particular way that Applicant has elected to adjust the structure in this case, which is by the provision of a threaded bolt secured within a threaded member or sleeve.

For the reasons set forth above, it is respectfully urged that the present application is in condition for allowance and allowance is respectfully requested.

Respectfully submitted,

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